

Algebra: Substitution

1. Copy and complete to evaluate the following expressions when **a** = 3, **b** = 2 and **c** = 1

(a) **a** + 2**b** + **c** (b) **b** + 3**c** + 6**a** (c) 7**a** – 3**b** – 4**c** (d) 8**a** – 9**c** – 3**b**

2. Given **p** = 3, **k** = 5 and **h** = 2, evaluate:

(a) **p** + 3**k** + 2**h** (b) 2**p** + 3**k** - 2**h** (c) 8**p** + 7**k** - 3**h** (d) 8**h** – 6**p** – 10**k**

3. Given **w** = 2, **x** = 3, **y** = 4 and **z** = 6, evaluate:

(a) 5**w** + 4**x** + 3**y** + **z** (b) 6**z** - 7**y** + 4**w** (c) **wx** + **zy** (d) **wxy** – 5**zy**

4. Substitute each letter by its numerical position in the alphabet:

e.g. **a** = 1, **b** = 2, ... ,**z** = 26. (a) 4**b** + 4**d** + **g** (b) **j** + 4**k** - 2**k**

5. Evaluate each formula:

(a) **A** = **Lb** when **L** = 8 and **b** = 5

(b) **P** = **a - c** when **a** = 4 and **c** = 2.5

(c) **P** = 2**a** + 2**b** when **a** = 8 and **b** = 4

(d) **F** = **ma** when **m** = 3 and **a** = 9